

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/076646 A1

(51) International Patent Classification⁷:

H04Q 7/36

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/EP2004/050088

(22) International Filing Date: 5 February 2004 (05.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): TELECOM ITALIA S.p.A. [IT/IT]; Piazza degli Affari, 2, I-20123 MILANO (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LANZO, Roberto [IT/IT]; c/o Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT). LEONI, Alessandro [IT/IT]; c/o Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT). STOLA, Loris [IT/IT]; c/o Telecom Italia S.p.A., Via G. Reiss Romoli, 274, I-10148 Torino (IT).

(74) Agents: CERBARO, Elena et al.; Studio Torta S.r.l., Via Viotti, 9, I-10121 Torino (IT).

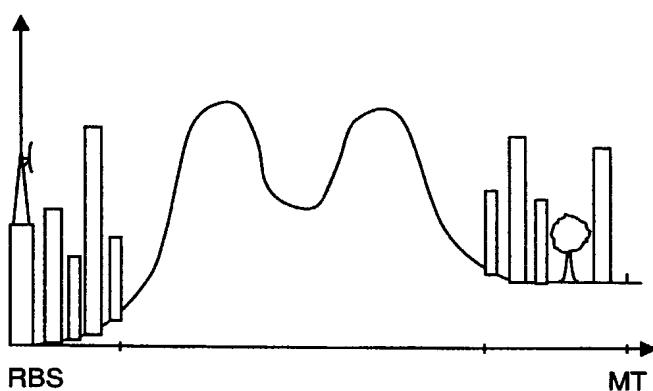
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR RADIO COVERAGE PLANNING WITH MULTIPLE RESOLUTION PROFILE APPROACH



(57) Abstract: A method for planning a radiocommunications network comprises computing cell coverage in turn including dividing a region around a radio base station (RBS) into a number of large environment pixels (LEP), dividing each large environment pixel (LEP) into a number of small environment pixels (SEP), and, for each target small environment pixel (SEP), computing a second quantity indicative of the coverage within the target small environment pixel (SEP), wherein each second quantity is computed for the respective target small environment pixel (SEP) as a function of a mixed environment profile describing the environment between the radio base station (RBS) and the target small environment pixel (SEP) along a propagation path of a radioelectric signal radiating out from the radio base station (RBS) and passing through the target small environment pixel (SEP), wherein the mixed environment profile describes the environment within small environment pixels (SEP) close to the radio base station (RBS) and the target small environment pixel (SEP), and within large environment pixels (LEP) along the remaining stretch of the radioelectric signal propagation path.

WO 2005/076646 A1